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The CSR aspects of the Energy Generating Industry

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The CSR aspects of the Energy Generating Industry

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Abstract

This paper presents a framework of the Corporate Social Responsibility (CSR) standards of the energy industry in North America, China, and European Union including Switzerland (Hereon named EU) according to the practices and CSR reporting. Through comparison, we show the general characteristics of the CSR activities between regions in the social, environmental, financial, and governmental aspects. There is not a common practice or CSR outline that can be placed throughout the global industry, as many countries have different societal expectations, regulations, and common practices within the industry. These differences change the way the CSR issues are administrated and how the industry determines their priorities to work for.

We used available information from different academic documents, government policies, and company CSR reports to make an analysis of how this industry makes

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an appropriate balance between sensitivity to social situations and benefits for the companies that work in this field.

Introduction

Providing energy for human beings is one of the tasks that take a great amount of responsibility. Energy is essential to human progress, as it creates jobs, fuels innovation, and powers the global economy (Frynas, 2010). Over the past few decades the global energy industry has changed very fast. Today, some countries have become key manufacturers in the global industrial chain, like China (Xiaojie Xu, 2011). Others, like the European countries, are very concerned to contribute to the economic and social development of their communities while mitigating the devastating impact that producing energy may have on environment and people (Kerckhoffs & Wilde-Ramsing, 2010).

Energy companies are remarkably open to environmental topics because the energy sector is uniquely situated to have a profound impact on many of the most pressing environmental issues. (Morhardt & Adidjaja, 2011). They`re responsible for over the 60% of the worldwide greenhouse gas emissions (Morhardt & Adidjaja, 2011).

Today some of the energy companies are aligning their CSR policies with international normative standards: UN Global Compact, the OECD Guidelines for Multinational Enterprises, the Global Reporting Initiative (GRI) and the Carbon Disclosure Project (CDP). More than 70% of the energy companies in Europe are members of the UN Global Compact (Kerckhoffs & Wilde-Ramsing, 2010).

Parallel to this trend, the concept of CSR has recently been gaining ground in the European energy sector. CSR is relatively new in the energy sector; a study made in 2006 by ECOTEC for the European Federation of Public Service Unions (EPSU) found that none of the 65 large European electricity companies analyzed had published a CSR report prior to 2003 (Emcef, 2009). German electricity company EDF, with its relative long history of publishing information on environmental and sustainability issues, only began to publish its CSR policy in 2005. (Kerckhoffs & Wilde-Ramsing, 2010).

In this paper we report the main aspects of the process of CSR incorporation in the Energy industry, specifically in China, the EU, and North America, which content shows that the CSR investments focus in three areas: health, education and economic development.

LITERATURE REVIEW

China

In order to address the aspects of CSR of the energy industry in China it is important to understand the importance of this subject for this economy. According to the U.S. Energy Information Administration, China is both the most populated country in the world and the largest energy consumer, and is rapidly increasing energy demand (EIA, 2010). China is the second consumer country after United States of oil, and its electricity generation is dominated by fossil fuel sources particularly coal. They are facing huge challenges in order to use renewable sources of energy production as the *Three Gorges Dam* hydroelectric facility planned to be completed by the year 2012 (EIA, 2010).

Despite of being the bigger consumer, China is also showing more potential in renewable energy (Jha, 2008). They are investing in alternative energy sources in different fields due to the limitations they have in regards to scarce resources and the dependency on fossil as it is showed on graphic 2. China's appetite for electricity has increased over the year due to its continuous growing process and has passed in 2008 from an installed electricity generating capacity of 797 gigawatts (GW) to 950 GW by the end of 2010, speculating to have a capacity of 1,500 GW by 2020 (EIA, 2010).

In the electricity industry, China has faced many changes in the structure. In 1980, private investment has entered into this sector and different reforms plans have been implemented by the government separating the generation from transmission. Some regulatory institutions have been highly involved in this process, especially mentioning the National Development and Reform Commission (NDRC), the State Electricity Regulatory Commission (SERC) and National Energy Bureau (NEB) who promoted a plan to allow market mechanisms in the generation, distribution and retail sector of electricity (Zhang & Chen, 2011).

The constant growth of China's economy and the dependency on fossils are evolving into an important characteristic regarding the environmental issues between the paradox of sustainability and growth. The CO2 emissions in China were 90% in 2003 due to the overuse of coal (Chiu & Wu, 2010). In recent years total CO2 emissions have ranked second after the U.S. There are many aspects that are pushing China's consumption of various types of energy. To have a perspective China in 2005 energies sources were: coal 67%, petroleum 22%, natural gas 3%, hydropower 5%, and nuclear energy 1%, with 70% of electricity depending on coal (Chiu & Wu, 2010).

One of the most important elements to remark about the CSR process in the energy industry in China are the efforts made in order to develop technologies for the contamination reduction. According to the ''Energy Conservation And Pollution Reduction'' policy of the Chinese government, technologies in the coal-fired electricity industry are mainly progressing in generation technologies, cooling systems, flue gas desulfurization (FGD) systems and unredeemed CCS systems (Yu, Chen, Sun, Zeng, & Wang, 2011)(Yu, Chen, Sun, Zeng, & Wang, 2011).

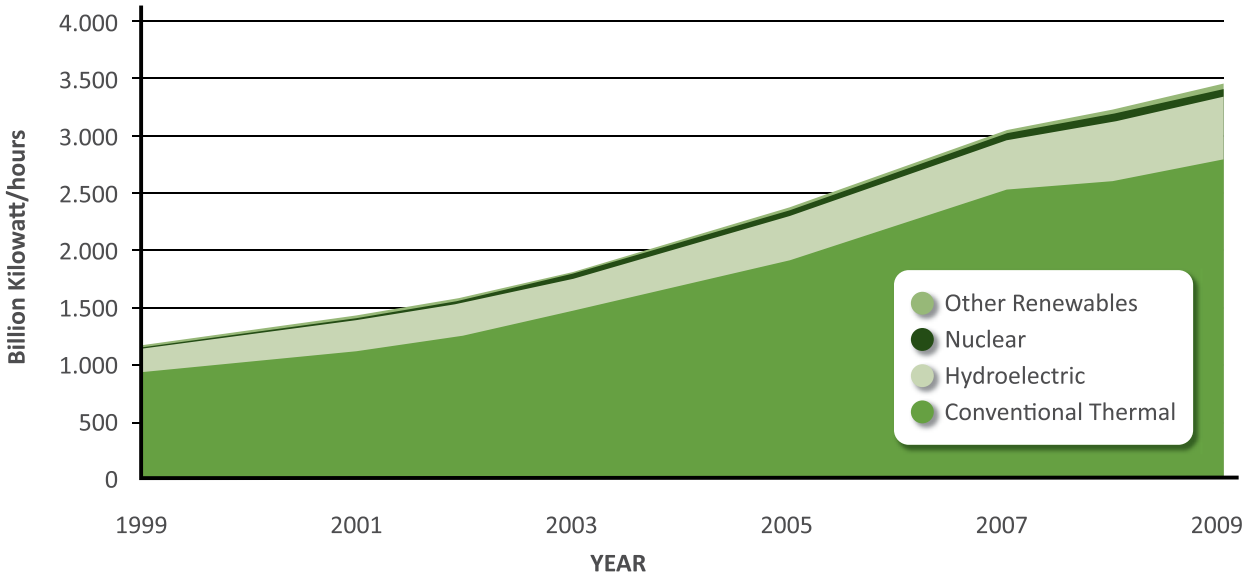


Illustration 1: China's Electricity Generation by type, 1989-2009

(EIA International Energy Statistics, 2010)

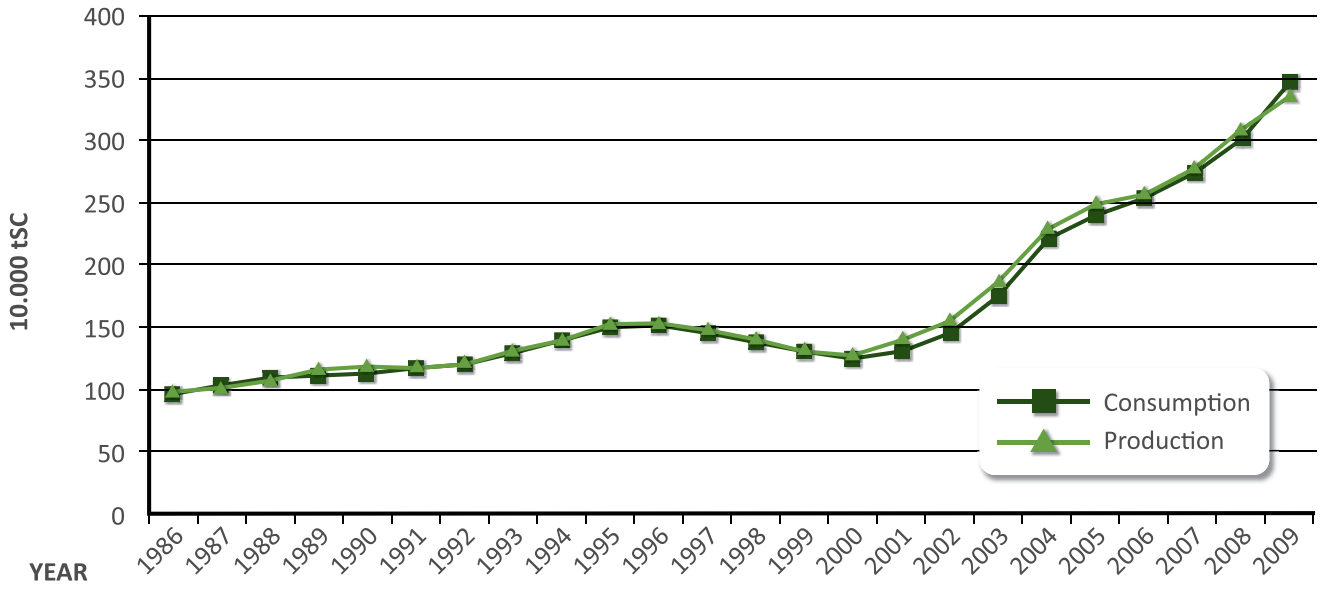


Illustration 2: Coal Production and Consumption

(EIA International Energy Statistics, 2010)

USA

A review of literature of the North American energy producing industry shows that the CSR reporting and activities of energy producing companies are primarily caused by governmental policy (Horwich, 2006) NGO and reporting agencies (Hurst, 2004), and the current social trends in the market (EIU, 2006).

The CSR practices of these companies are focused on responding to the views of external stakeholders (Bolton, Kim, & O'Gorman, 2011) and revolve around a few common pillars. Common themes of CSR are community building programs, cleaner air standards, NGO standards compliance, philanthropy, PR, tax benefits, and risk/reputation management, alternative energy production, and safety (Devon, 2009, Energy, 2011).

Open to manipulation, the energy trading markets have come under strict regulation in recent years and have impacted the CSR activities of the industry itself. The recent energy policies aim to diversify, decentralize, and decarbonize the energy sector (Carley, 2011). Congressional provisions in the US Energy Policy Act of 2005 enhanced the power of the Federal Energy Regulatory Commission to address manipulation and deception. With stricter regulations, companies are forced to adhere with more transparent reporting practices (Carley, 2011) (Horwich, 2006).

The US electricity industry is moving from a series of local monopolies to a more open and competitive system, where independent energy generating can compete to sell power to users (EIU, 2006). The enhanced competition has shown a strategy for more companies to adhere to external reporting agencies such as the Global Reporting Initiative, Coalition for Environmentally Responsible Economies, and the United Nations Environment Program (Hurst, 2004), as well as the Global energy assessment, Global Sustainable Electricity Partnership, and Global network for sustainable development.

Euroean Unión

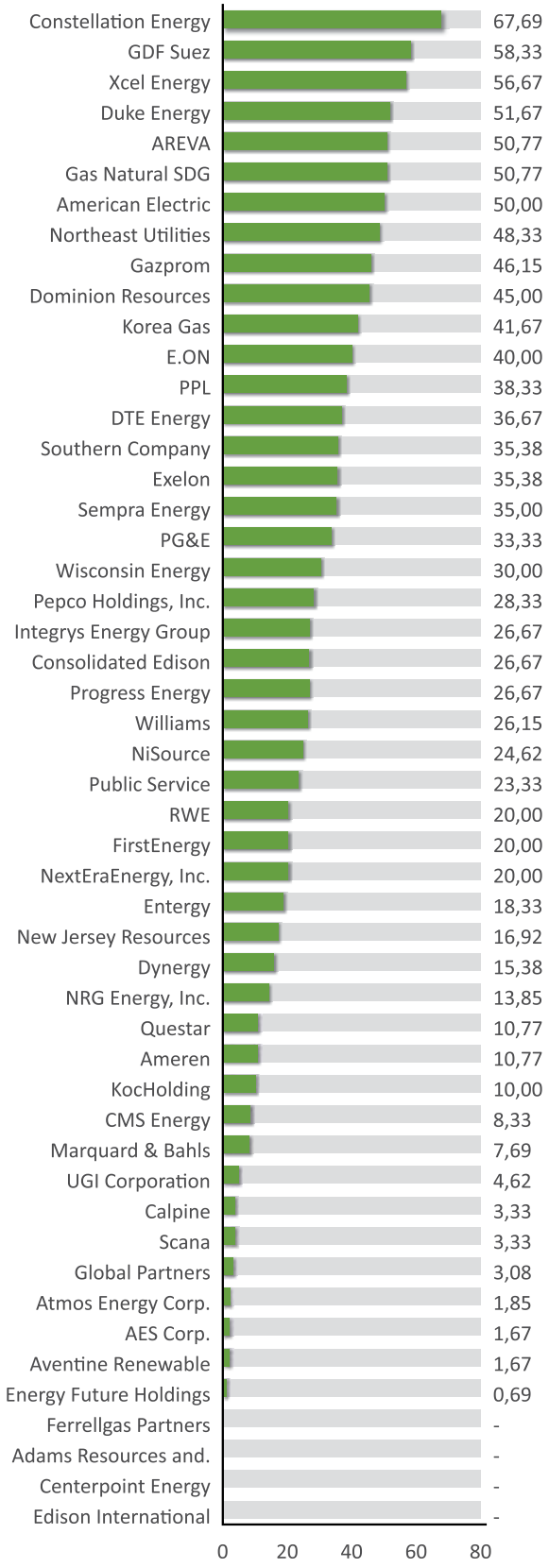
It was in the year 1996 when the European Union has liberalized the electricity markets and changed the focus for regionalized energy producers, which have had no threats from competitors, and had no intention to expand (Eising, 2002). This new situation awakened the interest of the big players of the European electricity industry to become transnational corporations (Kerckhoffs & Wilde-ramsing, 2010). Well aware of the upcoming requirements regarding the social needs for information and rights for consulting by the employees as well as the customers, the European Union has provided since 2004 a legal framework which was enhanced 2009 with new directives for European Work Councils or shortly called EWC (Kerckhoffs & Wilde-ramsing, 2010).

In parallel to the EWC the social partners of the European electricity industry have defined a joint position on social aspects of CSR represented by EURELETRIC (Union of the European Electricity Industry) for the employers, EPSU (European Federation of Public Service Unions) and EMCEF (European Mine, Chemical and Energy Workers Federation) representing the trade unions (Emcef, 2009). This commission funded the ECOTEC study in the year 2006 in order to provide background information on CSR policies and provide recommendations in the future (Emcef, 2009). Surprisingly this study revealed that none of the 65 large Electricity companies had published CSR Reports before 2003 even though, it was considered "good practice" for several years already (Kerckhoffs & Wilde-ramsing, 2010). The importance of labor related Corporate Social Responsibility becomes obvious with the amount of Employees that work in the Energy Industry and the amount of revenue it is produced.

COMPANY	EMPLOYEES	COUNTRIES	REVENUE 2008	HQ
Veolia Environnement	336'000.00	72	EUR 36.2 bln	Paris, France
GDF Suez	200'000.00	n/a	EUR 83.1 bln	Paris, France
EDF	160'913.00	26	EUR 64.2 bln	Paris, France
E.ON	93'538.00	19	EUR 87 bln	Düsseldorf, Germany
Enel	82'500.00	23	EUR 61 bln	Rome, Italy
Total	**872'951.00**		**EUR 331.5 bln**	

Table 1: Example of 5 European Energy Companies, 2009 (Kerckhoffs & Wilde-ramsing, 2010).

This clearly shows the visibility and impact of social activities of the Electricity Industry in the EU. Therefore, it may not surprise that besides the regulations, legal restrictions and duties force the corporations to follow well planned CSR Strategies and also the social power of Unions and NGO (González, 2010). Even though those social aspects in the European electricity industry and their power may have dominated the CSR aspects for several years, new challenges have appeared, such as reducing greenhouse gas (GHG) and the carbon dioxide (CO_2) emissions, to provide secure energy supplies and to maintain economically competitive in order to fuel the society and business world (Mihajlov, 2010). Regarding Environment and Society the goal of CSR agendas turns around sustainability in order to provide a future for the next generations which is at least similar and must not be worse than the present (Starace, 2009).



Methodology

To gain an overview of the energy industry, different significant regions where selected. China, USA and the European Union seem to us to be highly relevant not only regarding energy production but also due to their different levels and commitments in the Corporate Social Responsibility area. The applied research methodology started with the classification of aspects that are to be compared. Therefore the following table was designed in order to help addressing the literature review based on classification and regional aspects. Based on the findings of literature, each field was filled with a mark from 0 to 5 (where 0 means not existent and 5 highly sophisticated and documented). This evaluation was then discussed within the research group which led to the research conclusions. The methodology used for this comparison is called qualitative comparative analysis (C.C, 2001).

Findings

A study in 2010 was done by the Roberts Environmental Center at Claremont Mckenna College in California, USA of the analysis of the voluntary environmental and social reporting of companies on the combined Fortune 2010 Energy and Utilities sectors lists (Morhardt & Adidjaja, 2011). The results showed that though many companies openly reported they intended to implement CSR activities under social, environmental, and human rights topics but they have failed to disclose actual actions and data on such topics (Morhardt & Adidjaja, 2011). The report explains illustration 3 in the following terms: "Environmental reporting scores are based on the degree to which the company discusses its emissions, energy sources and consumption, environmental incidents and violations, materials use, mitigations and remediation, waste produced, and water used. They also include use of life cycle analysis, environmental performance and stewardship of products, and environmental performance of suppliers and contractors." (Morhardt & Adidjaja, 2011)

Illustration 3: Environmental Reporting Score (Morhardt & Adidjaja, 2011)

The electricity generating industry of the EU is highly dispersed as is the level of industrialization, politics and social level itself. For example, France produces more than 70% of the electricity with nuclear plants whilst Switzerland is mainly relaying on hydro plants and Germany as well as Britain more than 50% on carbon plants (Rey & Carlos, 2009). This situation justifies the high involvement of policy making and supervision driven by the centralized European Union Government System. The amount of employees, environmental impact and social aspects of this mega industry are reflected by the public pressure on the producers and government to improve the real goals of CSR in order to give competitive advantage to the region as well as guarantee long term sustainability in all aspects, environmental protection, social responsibility and governmental management. The trend of sustainable and renewable electricity production and away from nuclear plants is reflected by trend calculations of UNESA from the year 2007, where nuclear is predicted to go down from 18,9% in 2005 to 9.2% in 2030 and renewable (Solar, Wind) for example will increase from 5.6% in 2005 to approximately 17.6% in 2030 (Rey & Carlos, 2009).

In China has not developed a culture based on the CSR aspects due to the late introduction of the term into the economy of the country (Gao, 2009). It is very important to remark that due to the fact that China is the biggest producer and consumer of coal for electricity they have faced several issues regarding environmental sustainability but despite this aspects they have invested many resources in order to have cleaner sources (Wang & Nakata, 2009). This is mainly driven by the fact that they have to look for way to maintain its growth, also there are some governmental institutions dealing with energy sources to procure this stability (Zhang & Chen, 2011).

In the North American market, we had found that CSR in the energy industry is lopsided. Few companies, such as Duke Energy, embrace the responsibilities it owes to its stakeholders and the environment. Corporate Responsibility magazine named Duke Energy to its 2011 "100 Best Corporate Citizens List." Energy was ranked among the top 100 companies in the world for sustainability by the NASDAQ OMX Group and CRD Analytics. Listed on the Maplecroft Climate Innovation Index — a ranking of the largest U.S. companies that publicly engage on the issue of climate change (Energy, 2011). Many other companies donate large sums of money to community projects but they appear to be more of a marketing campaign than anything.

However, energy companies such as this are rare. Though many companies have implemented sustainability reports, upon further inspection it is seen that there are more smoke and mirrors than actual company effort to be sustainable,

environmentally friendly, or responsible. Let us examine American Electric Power (AEP) and Devon Energy, two of the largest energy providers in North America and global. AEP states in its CSR reporting that they have decreased emissions of So2 Nox 80% since 1980 (AEP, 2011), even though the Clean Air Act of 1990 mandated them to do it (Agency, 2011). Their CEO serves on the World Business Council for Sustainable Development (AEP, 2011), but 7% of its coal-supply comes from the environmentally-disastrous practice of mountaintop removal mining (Lau, 2010).

Devon Energy claims also to be a leader in sustainability with commitment to invest in alternative energy, but their CSR report states that "…alternative energy technologies are still in the infancy of development, and it may be decades before they can take the place of traditional energy sources. In the meantime, we will continue to rely on the natural gas, oil and coal…" (Devon, 2009). They also engage in one of the most environmentally destructive processes called hydro-fracturing and downplay the destruction in the CSR report. After destroying land to exhume natural gas, they brag that they have "worked with state officials to restore land near natural gas and oil wells", some 800 acres (Devon, 2009).

The political appeal to using tax instruments, as well as other types of financial incentives, is that they directly reduce the cost of alternative technologies (Carley, 2011). Energy companies are investing in alternative energies but also expanding their practices of environmentally destructive mining and processing of fuels at the same time.

According to reports filed with the Clerk of the U.S. House, AEP spent $7,297,245 lobbying at the federal level in 2009 (AEP, 2011). This type of lobbying is designed to eliminate environmental regulations and receive tax breaks. In 2005, the Bush/ Cheney Energy Bill exempted companies from disclosing the chemicals used during hydraulic fracturing from the Clean Air Act, Clean Water Act, and Safe Drinking Water Act. (Sections 322 and 323 of the Energy Policy Act of 2005). This is called the Halliburton loophole (Gasland, 2011) (Dixon, 2010).

Discussion

CSR elements in Electricity industry in China are motivated by international pressure (Babu, 2008) and the fact that the economy in order to subsist cannot rely forever in fossil based sources, many aspects of the CSR are new in Chinese culture and have no impact on the industry. However , Chinese President Hu Jintao instituted a "Harmonious Society" (HS) policy in 2005 marking a new China`s approach toward development, that generated an intense excitement that "Harmonious Society" will lead to increased CSR engagement in China, nevertheless the HS didn`t promote CSR in China`s growing industrial sector

because policy measures that affect the "constraints" driving CSR are bounded by other political considerations (See, 2009).

Energy production in the EU is a huge industry and converts CSR into a mostly political and economical matter. It is to assume, that such a big industry does have the power of lobbing and therefore CSR agendas and policies might be affected by economical decisions and political goals of the electricity TNCs rather than socially or environmentally reasonable. The liberalization of the energy sector has definitively improved the CSR evolution in the EU and the centralized government is, so it seems by the funding of studies and CSR congresses in that sector, highly interested in enhancing the CSR development including also the less developed members of the European Union. It is a challenge for such a heterogenic environment with different cultures, languages, social and educational levels, but first results are seen as for example the requirements of the European Commission Directives 2009/28/EC, renewable energy policy with ambitious targets for the year 2020 in Europe (Klessmann, Held, Rathmann, & Ragwitz, 2011). In general, the CSR of the European electricity industry is well financed due to the excellent corporate revenues and has reached a public awareness like in no other industry.

The energy industry needs solid CSR practices (Bolton, Chung-hee & O`Gorman, 2011) that are genuine to change public opinion, since it is prone to accidents, environmental disasters, and manipulation (Carley, 2011) (Horwich, 2006). North American companies have been pushed to change their practices by different acts of congress, and then claim that they are being responsible by doing this (Devon, 2009) (Dixon, 2010). The findings show that while few companies uphold a believable CSR practice, most appear to be throwing a towel over a horse and calling it a Ferrari. We have seen that the energy acts have directed the CSR of these energy companies (Dixon, 2010).

Conclusions

There is currently no set universal CSR protocol across the energy industry. Though most companies publish some sort of CSR report annually, upon further investigation most of the actions are puffery, green washing, or a marketing campaign. Few examples can be found of true corporate social responsibility in the literal definition (Bird, Hall, Momentè & Reggiani, 2007), taking into account all stakeholders interests (Heugens & Dentchev, 2007).

The EU and USA have a similar path of legislation regulating the industry that tries to balance profitability with environmental sustainability in light of recent disasters in the industry (British Petroleum, Gulf of Mexico's disaster, 2010). After adapting international and national energy regulating policies, few companies

have taken the extra step to fully invest in CSR activities that will be beneficial for the sustainability of the planet while divesting from harsh environmental practices such as hydro-fracking and mountain-top extraction mining.

China's environmental sustainability concerns are becoming an important topic in the energy industry. Regardless of these efforts, China's exponential growth seems to contribute to it being the biggest polluter worldwide. The over-reliance on fossil resources for the energy and electric sectors make it difficult for CSR activities to prevail without international and social pressures.

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